## Appendix A.

## Supplemental 1.

**Table S1.** Medical Specialty Codes/Provider Taxonomy Codes Used to Identify Specialists in the Medicare Dataset

Specialty	Medical Specialty codes	Provider Taxonomy codes
Endocrinology	11	207RE0101X
Infectious disease	11, 44	207RI0200X
Orthopedic surgery	2, 20	207X00000X, 207XS0114X,
		207XX0004X, 207XS0117X,
		207XX0801X, 207XP3100X,
		207XX005X, 207XS0106X
Plastic surgery	2, 24	2086S0122X, 2082S0099X,
		2082S0105X, 208200000X
Podiatry	48	213E00000X, 213ES0103X,
-		213ES0131X, 213EG0000X,
		213EP1101X, 213EP0504X,
		213ER0200X, 213ES0000X
Vascular surgery	2, 77	2086S0129X

## Supplemental 2. Sensitivity Analysis of alternative rurality coding scheme.

Table S2. Alternative RUCA categorization scheme

Category	RUCA codes	Number of patients per code	Number discharged from critical access hospital (%)
Urban	1.0, 1.1, 2.0, 2.1, 3.0, 4.1, 5.1, 7.1, 8.1, 10.1	105 245	1040 (0.99)
Large Rural	4.0, 4.2, 5.0, 5.2, 6.0, 6.1	9596	359 (3.74)
Small Rural/isolated	7.0, 7.2, 7.3, 7.4, 8.0, 8.2, 8.3, 8.4, 9.0, 9.1, 9.2, 10.0, 10.2, 10.3, 10.4, 10.5, 10.6	9112	1334 (14.64)

**Table S3.** Observed primary and secondary outcomes by alternative RUCA categorization scheme

		Rurality		
Characteristic	Full cohort <sup>*</sup> (n=124487) (100%)	Urban patients (n=105 245) (84.54%)	Large Rural (n=9596) (7.71%)	Small Rural/isolated (n=9112) (7.32%)
Outcome				
Seen by at least 1 specialist (primary outcome)	40 027 (32.15)	34 574 (32.85)	2671 (27.83)	2699 (29.62)

Table S4. Odds ratios for specialty care using alternative RUCA scheme

Outcome		At least one specialist, aOR (95% CI)  Patient characteristic		
Model	Model variables	Small rural/isolated residence	Identifying as Black	
1	Patient characteristic	0.86 (0.82-0.90)	1.08 (1.04-1.11)	
2	Patient characteristic+ age + sex	0.85 (0.81-0.89)	1.03 (0.99-1.07)	
3	Rural residence + identifying as Black + age + sex + sociodemographic factors <sup>†</sup>	0.89 (0.85-0.94)	1.04 (1.01-1.08)	
4	Rural residence + identifying as Black + age + sex + sociodemographic factors <sup>†</sup> + comorbidities + ulcer severity	0.85 (0.81-0.90)	0.92 (0.89-0.97)	
5	Rural residence + age + sex identifying as Black + sociodemographic factors + comorbidities + ulcer severity + interaction (rural residence x identifying as Black)	White	Black	
		0.87 (0.80-0.89)	0.61 (0.51-0.74)	